INTERLINK/UNI is a compact, Unibus* compatible, general purpose DMA interface and can be used as one side of a high-speed, half duplex data transfer channel between two systems.

INTERLINK/UNI AS INTERPROCESSOR LINK (DA11-B)
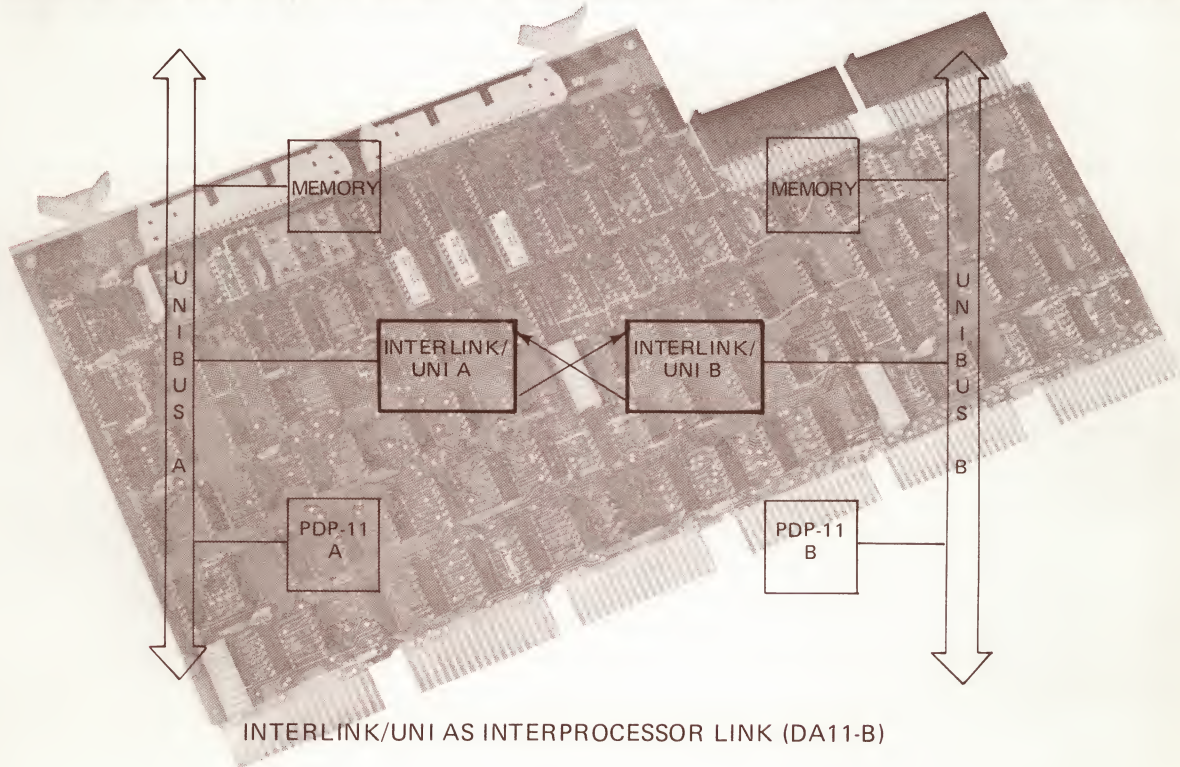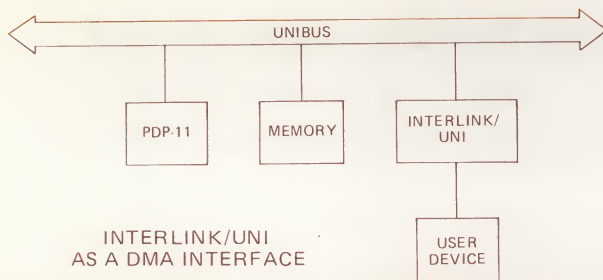
FEATURES

- INTERLINK/UNI requires half the power and one quarter the space of the DEC* equivalent units

- INTERLINK/UNI provides the unique capability of linking two PDP-11 Unibus systems, in addition to a general purpose DMA interface capability

- On-board switches for address and vector selection add flexibility without the need for jumpers

- The use of hysteresis receivers between the INTERLINK/UNI and an external device improves noise immunity

- The module installs into any SPC slot - - it requires no backplane modifications when installed in the first or last backplane slot

- Software and diagnostic compatible with the DEC DR11-B

- An INTERLINK/UNI used in combination with an INTERLINK/LSI™ provides Unibus to Q Bus* system links not otherwise available

GENERAL DESCRIPTION

A single INTERLINK/UNI module provides the necessary logic for DMA transfer of 16-bit data between the Unibus and an external user-specified device. It emulates and is software compatible with the DEC DR11-B. (See diagram on reverse.)

Two INTERLINK/UNI modules can be cross connected to emulate the DEC DA11-B to allow complete computer link operation between two Unibus systems. When used together with an INTERLINK/LSI, A Unibus system and a Q Bus system (LSI-11) can be linked.

The INTERLINK/UNI is implemented on a single, modified hex-width module. Using an optional short Unibus cable, it installs in the first or last SPC slot without requiring backplane modification. Two 50-pin Berg connectors on the module provide user connection to an external device.

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INTERLINK/UNI
AS A DMA INTERFACE

ADDRESSABLE REGISTERS

Register	Mnemonic	Operation	Bus Address
Word Count	DRWC	Read/Write	7XXX00
Bus Address	DRBA	Read/Write	7XXX02
Control and Status	DRST	Read/Write	7XXX04
Data Buffer	DRDB	Read/Write	7XXX06

ADDRESS/VECTOR SELECTION

Address selection is via on-board pencil switches in the range 760000 through 777776. The INTERLINK/UNI is normally set for a device address of 77241X. Vector selection is also by pencil switches and has a range of 000 through 774.

PRIORITY SELECTION

INTERLINK/UNI is shipped with a BR5 level interrupt priority. The priority level can be easily changed.

DATA TRANSFER

DMA (NPR) data transfers to and from memory for a single INTERLINK/UNI are as high as one million words per second. When used as a computer link, a data transfer rate as high as 500 thousand words per second can be achieved at distances up to 50 feet. (Note: As with the DEC units, performance can be degraded over long cables; software may not support full hardware speed capability in sustained operation.)

SOFTWARE SUPPORT

INTERLINK/UNI is software supported by RSX-11M, RSX-11S, DECNET-M, S, and D, and a handler is available from DEC for RSX-11D.

ORDERING INFORMATION

Model	ABLE Order Number	Description
INTERLINK/UNI	10046	One modified hex-width board and maintenance cable.

Check with ABLE for cable and link ordering information.

DIAGNOSTIC COMPATIBILITY

ZDRB   NPR Interface Test
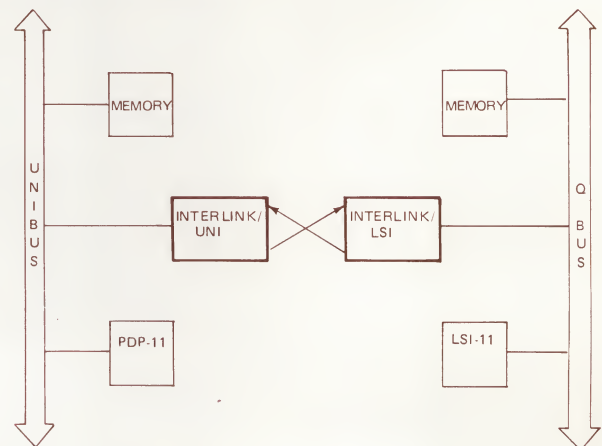
POWER REQUIREMENTS

2.0 amps at +5 volts

BUS LOADING

The INTERLINK/UNI presents one unit load to the Unibus.

UNIBUS TO Q BUS LINK

The INTERLINK/UNI can be used in combination with an INTERLINK/LSI to provide a computer system link between a PDP-11 and an LSI-11 system. (See block diagram.)

UNIBUS TO Q BUS INTERPROCESSOR LINK

ABLE has created a veritable store of DEC computer enhancements. ABLE's unique products help you get more out of your PDP-11. Look at our current product listing . . . you will find solutions of genuine value.

SPECIAL MEMORY PRODUCTS

SCAT/45 (330 nsec Fastbus Memory)
CACHE/45 (2KB Fastbus Cache)
CACHE/434 (8KB Unibus Cache)
CACHE/440 (8KB Unibus Cache)

COMMUNICATIONS PRODUCTS

QUADRASYNC (4-line DL11)
QUADRASYNC/LSI (4-line DLV11)
QUADRACALL (4-line DN11)
DMAX/16 (DH11 Replacement)
DM/16 (DM11-BB Replacement)
DV/16 (DV11 Replacement)

GENERAL PURPOSE PRODUCTS

INTERLINK/UNI (DR11-B + DA11)
INTERLINK/LSI (DRV11-B + Link)
UNIVERTER (Q Bus to Unibus)
DUAL I/O (Dual DR11-C)
REBUS (DB11-A Replacement)
EMULOADER (ODT/Boot Loader)
UNIFACE (Universal IOP)

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